



ROCHEM[®]

WASTEWATER

ROCHEM INVENTED D'TRO®. IN HAMBURG, 1984.



We still manufacture in Hamburg. There, over 60 people pursue our goal of hand-built German quality for the efficient treatment of water. As the production facility for Rochem Group, we take pride in continuing to further improve the solutions that we first invented to treat water over 40 years ago.

We base our engineering and unit layouts around our own RO modules to maximize the efficiency and durability of our systems. This philosophy results in the most efficient, easiest to service, cheapest to operate systems based on our 40 years of experience, thousands of systems installed, and countless hours of prototyping and real-world testing.

Please make an appointment to visit us and see for yourself.

WE PIONEERED WASTE WATER TREATMENT BY REVERSE OSMOSIS.



- Rochem invented and patented the first functional **DTRO**[®] system in 1982. Rochem **DTRO**[®] modules remain the world's best design for water with very high fouling potential.
- We began successful treatment of wastewater in 1984.
- In 1999, we developed the TS module design, with a larger membrane area and excellent resistance to fouling for many applications.
- In 2004 we updated the **DTRO**[®] modules to increase surface area and resistance to high pressures for our high-recovery needs.
- In 2025 we updated our **DTRO**[®] architecture to increase recovery to over 90% from difficult water via our Ultra High Recovery systems.
- We have installed thousands of wastewater and seawater systems based on our unique understanding of fouling prevention and efficient recovery of pure water.

ROCHEM SUPPLIES THE MEMBRANES YOU NEED.

- We make our own TS membrane elements and DT membrane cushions for full quality control.
- We can build your modules with any membrane available to us as well-recognized module manufacturers.
- We use your water parameters to determine which type of membrane is ideally suited to your water.
- Data sheets do not tell the full story, so we perform our own testing to understand which membrane works best in a given situation.
- Our module-design philosophy allows cleaners to access our entire membrane surface. Our membrane life expectancy is therefore multiples of that of other makers'.



WE HAVE THE RIGHT MODULE FOR YOUR WASTEWATER.



ROCHEM DTRO® MODULES

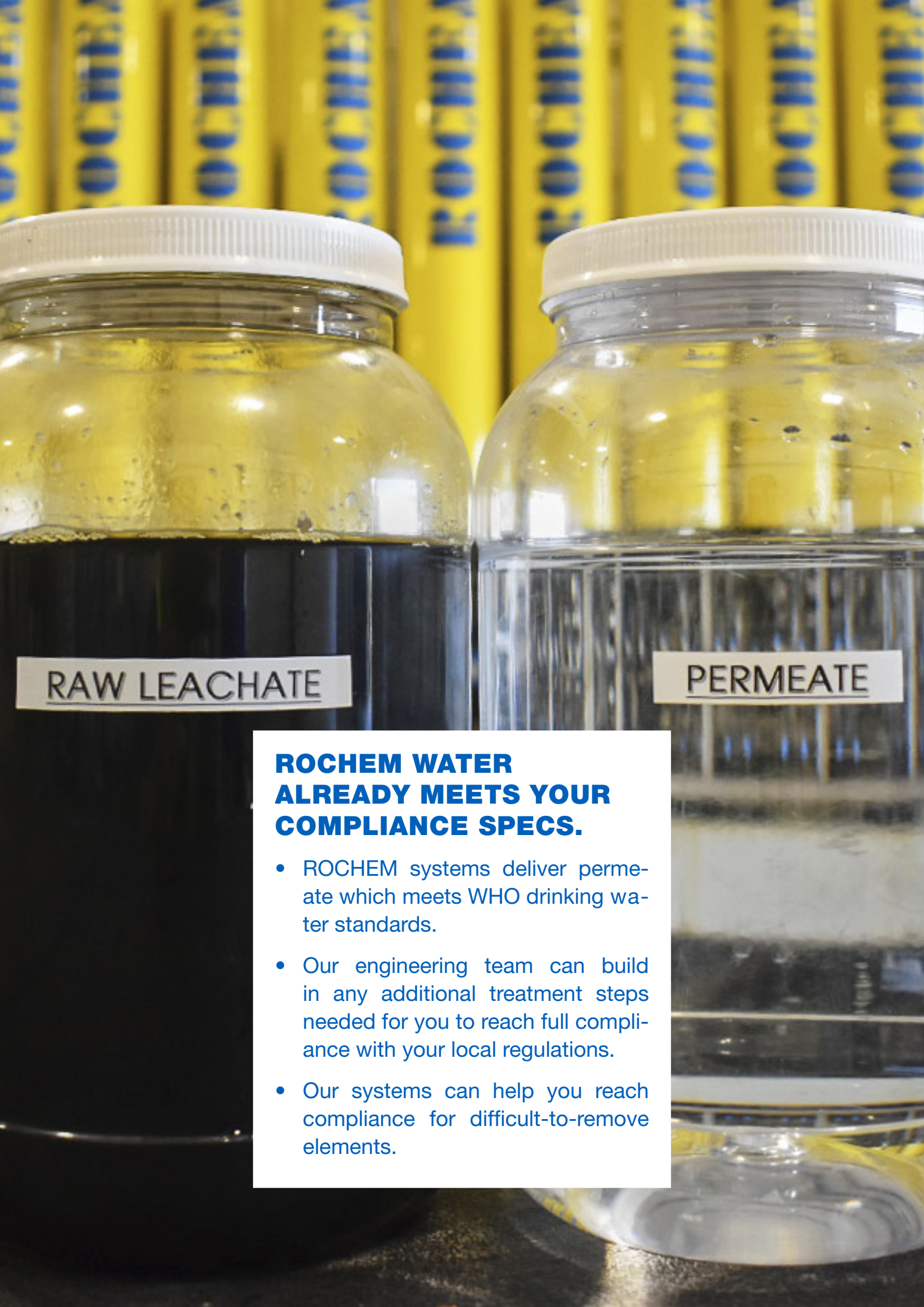
- In many cases, no membrane or chemical pretreatment required.
- Lowest membrane fouling in the industry
- High salt rejection
- Perfectly clear open-feed flow channel
- Simple cleaning of entire membrane area
- Extremely long life expectancy
- Minimal differential pressure
- Virtually no mineral scaling possible
- Handles feedwater up to SDI 20 without prefiltration

Ideal for seawater with extreme silt presence, and wastewater with the potential for heavy fouling.

ROCHEM TS MODULES

- High membrane density with open channel design
- Extremely low membrane fouling
- High salt rejection
- Simple cleaning of entire membrane area
- No flow redirection
- Low number of sealing points
- Minimal differential pressure
- Minimal risk of membrane blockage by mineral scale due to our flow pattern
- Handles feedwater up to SDI 20 without prefiltration

Ideal for seawater and wastewater with typical to high silt presence.



RAW LEACHATE

PERMEATE

**ROCHEM WATER
ALREADY MEETS YOUR
COMPLIANCE SPECS.**

- ROCHEM systems deliver permeate which meets WHO drinking water standards.
- Our engineering team can build in any additional treatment steps needed for you to reach full compliance with your local regulations.
- Our systems can help you reach compliance for difficult-to-remove elements.

ROCHEM SYSTEM LIFE-TIMES ARE MEASURED IN DECADES.



Above - a system we made more than 25 years ago.

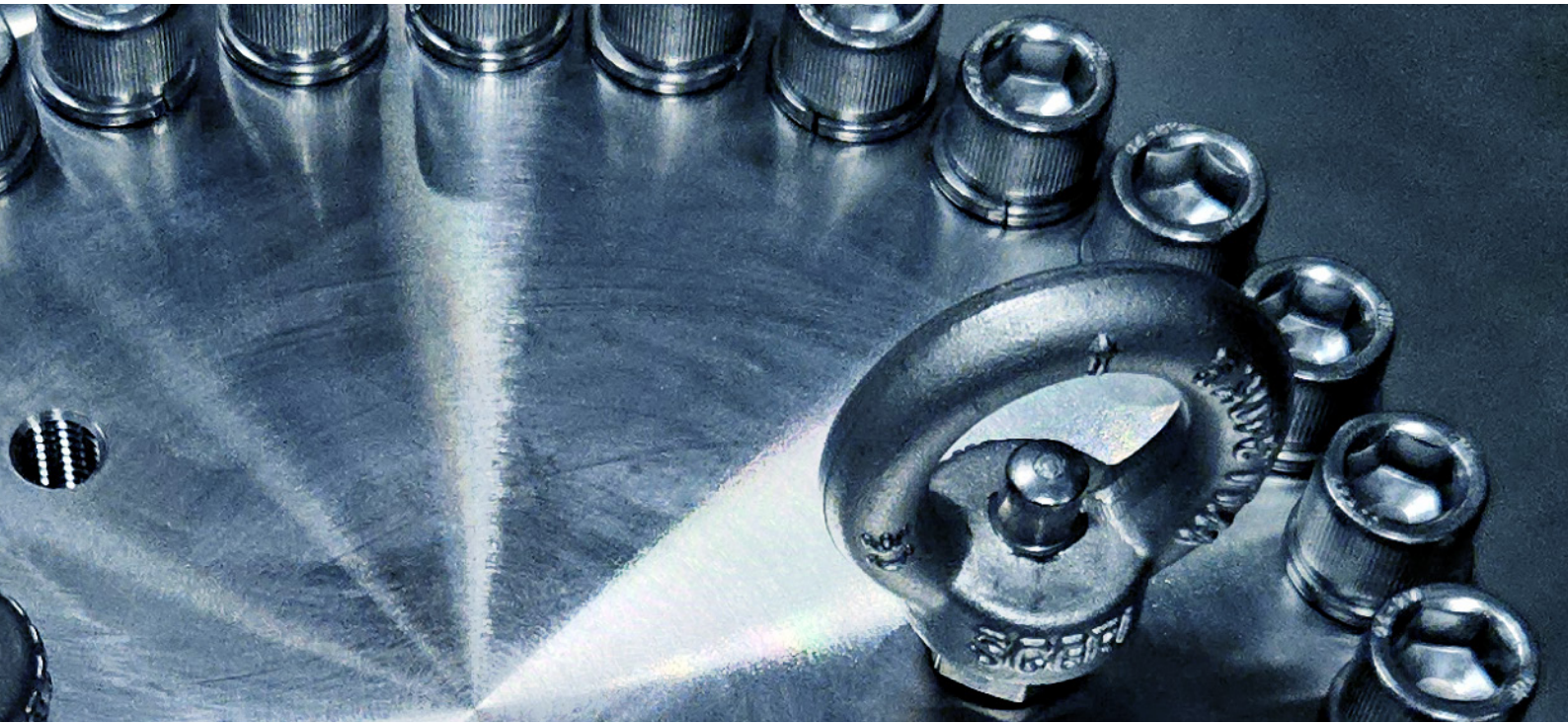
- While systems are typically written off after seven to ten years, we routinely get calls to upgrade a unit that has been working for decades in order to increase capacity or recovery, or to bring it up to modern TUV standards.
- Please get in touch if you would like to see what a ROACHEM upgrade can bring to your recovery and your profits.
- Even if your current system was not made by Rochem, our service team and engineers will be happy to give you a free evaluation about bringing up to our standards.

ROCHEM SYSTEMS: UP-TO-DATE AND EASY TO USE.



- Rochem wastewater units are equipped with a user-friendly interface to read or set operating parameters.
- Operating faults are clearly identified on the display.
- Service can be carried out on the spot by your operator using the service manual we have created specifically for your system.
- All units are equipped with a fail-safe system which protects them from potentially damaging external conditions and/or operator errors.
- We provide advanced data-logging and online connectivity.

REDUCE WASTE AND COSTS BY HALF: ASK FOR 85%-PLUS RECOVERY.



- At 85% recovery, waste volume is reduced by half compared to a water recovery value of 70%, and it is reduced by more than 62% when compared to a water recovery of 60%.
- In difficult leachate, Rochem RO systems routinely obtain more than 85% recovery.
- This greatly diminished waste volume offers you a wider range of waste disposal opportunities.
- Costs of waste disposal are automatically diminished by 50%.
- 50% less trucking means 50% less organizational work for your team.
- High recovery reduces risk of fines or fees for non-compliance or missing discharge limits.
- Ask us about UHR if you would like to reduce your costs by even more: we can get you to a recovery of more than 90%, saving you over 65% on your disposal costs when compared to a standard recovery of 60%.

ROCHEM CHEMICALS PROLONG THE LIFE OF YOUR MEMBRANES.



- RocheM systems, by their specific water flow design, require no chemicals until very high concentration limits (above precipitation levels) are reached.
- If your water contains problematic elements, RocheM has a full range of ROPREP antiscalants to ensure or increase expected recovery.
- RocheM also makes a complete range of membrane cleaners which ensure perfect flow through our membranes and prolong the service life of our modules.
- Both of our chemical ranges have been proven to be effective under long-term testing to make sure that your system does not serve as a guinea pig for our R&D department.

ROPREP*: ROCHEM CHEMICAL PRETREATMENT

	SPECIALLY FORMULATED FOR	CaCO ₃	CaSO ₄	BASO ₄	CaPO ₄	CaF ₂	SrSO ₄	Silica	Metal Oxides
Roprep	Colloidal Silica	Highly effective	Effective	Highly effective	Highly effective	Highly effective	Not rated	Highly effective	Not rated
Roprep C	Calcium Carbonate	Highly effective	Effective	Not rated	Effective	Highly effective	Not rated	Not rated	Effective
Roprep CSF	Calcium Sulphate, saturation values up to 6	Highly effective	Highly effective	Not rated	Not rated	Highly effective	Not rated	Not rated	Effective
Roprep SSF	Reactive Silica	Effective	Not rated	Highly effective	Highly effective	Effective	Highly effective	Highly effective	Effective
Roprep SP-SIM	Wastewater Reuse	Not rated	Effective	Highly effective	Highly effective	Not rated	Highly effective	Highly effective	Highly effective
Roprep S	Calcium Sulphate in combination with Iron and Copper oxydes	Effective	Highly effective	Highly effective	Not rated	Highly effective	Not rated	Not rated	Highly effective
Roprep MFS	Colloidal Silica in combination with metal oxides	Highly effective	Effective	Highly effective	Highly effective	Highly effective	Not rated	Highly effective	Highly effective
Roprep MF	Calcium Sulphate, saturation values up to 14	Highly effective	Highly effective	Effective	Not rated	Highly effective	Not rated	Not rated	Highly effective

* Effective Highly effective Not rated



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